

AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of drawings includes changes to Figures 1-9.

Attachment: Replacement sheets

REMARKS

I. General

Claims 1-32 are pending in the application. Claims 1-5, 7-13, 15-17, 19 and 24-32 stand rejected under 35 U.S.C. § 102. Claims 22 and 23 stand rejected under 35 U.S.C. § 103. The Drawings are objected to. No claims are amended by this response.

II. Claim Objections

Claims 6, 14, 18, 20 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant thanks the Examiner for the indication of allowability for claims 6, 14, 18, 20 and 21 and presents arguments herein for the patentability of all claims.

III. Amendments to the Drawings

Figure 1, as attached hereto as a replacement drawing, has been amended to identify element 106, as suggested by the Examiner. In addition, all seven sheets of drawings, holding Figures 1-9, are amended to show docket numbers on the front of the drawing page. No new matter has been added by these amendments.

IV. Claim Rejections

A. Rejections under 35 U.S.C. §102

Claims 1-5, 7-13, 15-17, 19 and 24-32 stand rejected under 35 U.S.C. § 102 over US 6,952,454 (hereinafter, Jalali). Applicant traverses the rejection.

Claim 1 recites, in part, “for each cluster associated for use in communication with the first subscriber and the second subscriber, multiplexing a usage of said each cluster between the first subscriber during a first time division and the second subscriber during a second time division.” Jalali does not disclose this feature at least because it does not teach multiplexing a usage of each cluster, as claimed.

The Office Action cites Figure 2 of Jalali, alleging that Figure 2 shows clusters of sub-channels and TDM, in which data is transmitted into slots. Applicant notes that Figure 2 of Jalai discloses the a time-slot scheme for an Orthogonal Frequency Division Multiplexing (OFDM), which uses the pilot data for synchronization – not cluster usage. Jalai, column 13, line 64, through column 14, line 1. Further, Applicant notes that the Office Action does not allege that Jalai discloses multiplexing a usage of each cluster. Therefore, Jalali does not disclose the above-recited feature of claim 1, and the rejection of record is insufficient to show anticipation under 35 U.S.C. § 102.

Claim 32 recites, in part, “multiplexing logic coupled with the user data queues to receive feedback information from subscribers, to allocate, based on the feedback information, one or more clusters of subcarriers to each subscriber, and to time division multiplex data from the user data queues into cluster data queues corresponding to those of the clusters allocated to more than one subscriber.” Jalali does not teach at least this feature of claim 32 because it does not teach “time division multiplex[ing] data from the user data queues into cluster data queues corresponding to those of the clusters allocated to more than one subscriber.” As shown above, Jalali does not disclose multiplexing a usage of each cluster, nor does the Office Action allege that Jalai discloses multiplexing a usage of each cluster. Therefore, Jalali does not disclose the above-recited feature of claim 32, and the rejection of record is insufficient to show anticipation under 35 U.S.C. § 102.

Dependent claims 2-5, 7-13, 15-17, 19 and 24-31 each depend either directly or indirectly from independent claim 1 and, thus, inherit all of the limitations of independent claim 1. Thus, Jalali does not disclose all claim limitations of claims 2-5, 7-13, 15-17, 19 and 24-31. It is respectfully submitted that dependent claims 2-5, 7-13, 15-17, 19 and 24-31 are allowable at least because of their dependence from claim 1 for the reasons discussed above. Accordingly, Applicant respectfully requests the withdrawal of the rejection of claims 1-5, 7-13, 15-17, 19 and 24-32. Moreover, these dependent claims recite features and limitations not found in the cited art.

For example, claim 2 recites “assigning said each cluster to a one of the first subscriber and the second subscriber that has a highest transmission rate” Jalali does not disclose assigning clusters based on subscriber transmission rate, but merely discloses

tailoring data rates to interference levels. Claim 7 recites “selecting the at least one cluster based on a SINR and a traffic load of each one of the at least one cluster.” The section of Jalali cited by the Office Action teaches optimizing beamforming based on carrier-to-interference (C/I) ratio, not cluster selection.

Claim 10 recites “assigning said each cluster to a one of the first subscriber and the second subscriber based on a quality of service requirement of the first subscriber and a quality of service requirement of the second subscriber.” Jalali does not disclose cluster assignment based on differing subscriber’s quality of service requirements. Applicant notes that the sections of Jalali that the Office Action purports to disclose the limitations of claims 13-17, i.e. columns 25, 26 and 28, do not exist. Applicant asserts that the rejections of claims 13-17 is therefore improper.

Claim 19 recites “loading the data associated with a ... higher quality of service requirement ... before loading the data associated with a ... lower quality of service requirement ...” Jalali does not disclose an order of loading data that depends on quality of service requirements.

B. Rejections under 35 U.S.C. §103

Claims 22 and 23 stand rejected under 35 U.S.C. § 103(a) as being obvious over Jalali. Applicant traverses the rejection.

As shown above, Jalali does not teach all features of independent claim 1. Dependent claims 22 and 23 each depend either directly or indirectly from independent claim 1 and, thus, inherit all of the limitations of independent claim 1. Thus, Jalali does not teach or suggest all claim limitations of claims 22 and 23. It is respectfully submitted that dependent claims 22 and 23 are allowable at least because of their dependence from claim 1 for the reasons discussed above. Accordingly, Applicant respectfully requests the withdrawal of the rejection of claims 22 and 23. Moreover, these dependent claims recite features and limitations not found in the cited art.

For example, claim 22 recites “preempting a loading of data associated with a third subscriber ... upon determining that the data associated with the first subscriber has a higher

quality of service requirement” Similarly, claim 23 recites “loading data associated with the first subscriber includes loading data having a highest quality of service requirement of any data associated with the first subscriber before loading other data” Jalali does not teach or suggest preemption or that an order of loading data depends on quality of service requirements.

Conclusion

In view of the above, Applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-2380, under Order No. 68144/P017US/10502093 from which the undersigned is authorized to draw.

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Respectfully submitted,

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Attachments

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REPLACEMENT SHEETS

Please see seven (7) attached replacement sheets.